EXHIBIT 6

Docket No.: 1793.1290

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

ID #:1615

Document 56-7

In re the Application of:

Won-ik CHO, et al.

Serial No. 10/849,190

Group Art Unit: 2627

Confirmation No. 7296

Filed: May 20, 2004

Examiner: Hindi, Nabil Z.

For:

OPTICAL PICKUP ACTUATOR AND OPTICAL DISK DRIVE ADOPTING THE SAME

AND METHOD

AMENDMENT

Commissioner for Patents PO Box 1450 Alexandria, VA 22313-1450

Sir:

This is in response to the Office Action mailed January 5, 2007, and having a period for response set to expire on April 5, 2007.

The following amendments and remarks are respectfully submitted. Reconsideration of the claims is respectfully requested.

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IN THE CLAIMS:

The text of all pending claims (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with strikethrough. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL 2 and 12 without prejudice or disclaimer, and AMEND claims 1, 4, 11, 14, and 26 in accordance with the following:

- 1. (currently amended) An optical pickup actuator for use with an objective lens on a base, comprising:
 - a blade holding the objective lens;
- a plurality of suspension wires supporting the blade on the base so that the blade is elastically movable;
 - a magnetic element positioned on the base; and
- a coil positioned horizontally on the blade to generate an electromagnetic force in a focusing and/or tilting direction through an interaction with the magnetic element,

wherein the coil is divided into a plurality of subcoils, where each subcoil is separated from an adjacent subcoil in a vertical direction, and

wherein the coil comprises a pair of first coils positioned on the blade in a first direction and facing each other with respect to the objective lens.

- 2. (canceled)
- 3. (original) The optical pickup actuator according to claim 1, wherein the coil comprises a coil surrounding an outer surface of the blade.
- 4. (currently amended) The optical pickup actuator according to claim 21, further comprising a second coil positioned vertically on a side of the blade in a second direction substantially perpendicular to the first direction, the second coil generating an electromagnetic force in a tracking direction through interaction with the magnetic element.
- (original) The optical pickup actuator according to claim 4, wherein the second 5. coil is positioned on both sides of the blade.

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- (original) The optical pickup actuator according to claim 4, further comprising an 6. inner voke positioned on the base and positioned within a cavity defined by walls of the first coil, wherein the inner yoke has a pair of first walls disposed opposite the second coil and separated from each other in the second direction.
- (original) The optical pickup actuator according claim 5, further comprising an 7. inner yoke positioned on the base and positioned within a cavity defined by walls of the first coil, wherein the inner yoke has a pair of first walls disposed opposite the second coil and separated from each other in the second direction.
- (original) The optical pickup actuator according to claim 1, wherein the magnetic 8. element comprises a pair of unipolar magnets disposed opposite each other with respect to the blade and have the same polarity.
- (original) The optical pickup actuator according to claim 4, wherein the magnetic 9. element comprises a pair of unipolar magnets disposed opposite each other with respect to the blade in the second direction and have the same polarity.
- (original) The optical pickup actuator according to claim 1, further comprising 10. three stoppers interposed between the blade and the base for preventing the blade from colliding with the base when excessively driven toward the base and arranged in a triangular shape centered on the objective lens.
- 11. (currently amended) An optical disc drive for a disc that is a recording medium, comprising:

a spindle motor for rotating the disc-;

an optical pickup for recording and/or reproducing information by emitting light onto the disc through an objective lens-; and

an optical pickup actuator for controlling a position of the objective lens so that the emitted light is focused on a desired position of the disc, the optical pickup actuator comprising: a blade holding the objective lens,

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a plurality of suspension wires supporting the blade on a base so that the blade is elastically movable,

a magnetic element positioned on the base, and

a coil positioned horizontally on the blade to generate an electromagnetic force in a focusing direction and/or a tilting direction through interaction with the magnetic element,

wherein the coil is divided into a plurality of subcoils, where each subcoil is separated from an adjacent subcoil in a vertical direction, and

wherein the coil comprises a pair of first coils positioned on the blade in a first direction so as to face each other with respect to the objective lens.

- 12. (canceled)
- 13. (original) The optical disc drive according to claim 11, wherein the coil comprises a coil positioned on the blade so as to surround an outer surface of the blade.
- 14. (currently amended) The optical disc drive according to claim 4211, wherein the optical pickup actuator further comprises a second coil positioned vertically on a side of the blade in a second direction substantially perpendicular to the first direction, the second coil generating an electromagnetic force in a tracking direction through interaction with the magnetic element.
- 15. (original) The optical disc drive according to claim 14, wherein the second coil is positioned on both sides of the blade.
- 16. (original) The optical disc drive according to claim 14, wherein the optical pickup actuator further comprises an inner yoke positioned on the base and placed inside the first coil, and

wherein the inner yoke has a pair of first walls disposed opposite the second coil and separated from each other in the second direction.

17. (original) The optical disc drive according to claim 14, wherein the magnetic element comprises a pair of unipolar magnets disposed opposite each other with respect to the blade in the second direction and have the same polarity.

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18. (original) The optical disc drive according to claim 11, wherein the optical pickup actuator further comprises three stoppers interposed between the blade and the base for preventing the blade from colliding with the base when excessively driven toward the base and arranged in a triangular shape centered on the objective lens.

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19. (original) An optical pickup actuator for use with an objective lens on a base, comprising:

a blade holding the objective lens;

a plurality of suspension wires supporting the blade on the base so that the blade is elastically movable;

a pair of first coils positioned horizontally on the blade and disposed opposite each other with respect to the objective lens in a first direction;

a second coil positioned vertically on a side of the blade in a second direction perpendicular to the first direction; and

an inner yoke positioned on the base, the inner yoke positioned inside a cavity defined by each of the first coils,

wherein the inner yoke has a pair of first walls disposed opposite the second coil and separated from each other in the second direction.

- 20. (original) The optical pickup actuator according to claim 19, wherein each of the first coils is divided into a plurality of subcoils, where each subcoil is separated from an adjacent subcoil in a vertical direction.
- 21. (original) The optical pickup actuator according to claim 19, further comprising a third coil positioned so as to surround the sides of the blade.
- 22. (original) The optical pickup actuator according to claim 21, wherein the third coil is divided into a plurality of subcoils that are vertically separated from one another.
- 23. (original) The optical pickup actuator according to claim 19, further comprising a pair of unipolar magnets disposed opposite each to other with respect to the blade in the second direction and have the same polarity.

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(original) The optical pickup actuator according to claim 19, further comprising 24. three stoppers interposed between the blade and the base for preventing the blade from colliding with the base when excessively driven toward the base and arranged in a triangular shape centered on the objective lens.

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- (original) The optical pickup actuator according to claim 19, wherein the second 25. coil is positioned vertically on both sides of the blade in the second.
- (currently amended) An optical disc drive for a disc that is a recording medium, 26. comprising:

a spindle motor for rotating the disc-;

an optical pickup for recording and/or reproducing information by emitting light focuses onto the disc through an objective lens-; and

an optical pickup actuator for controlling a position of the objective lens so that the emitted light is focused on a desired position of the disc, the optical pickup actuator comprising:

a blade holding the objective lens and supported on a base by a plurality of suspension wires so that the blade is elastically movable,

a pair of first coils positioned horizontally on the blade and disposed opposite each other with respect to the objective lens in a first direction,

a second coil positioned vertically on a side of the blade in a second direction perpendicular to the first direction, and

an inner yoke positioned on the base, the inner yoke positioned inside a cavity formed by walls of each of the first coils,

wherein the inner yoke has a pair of first walls disposed opposite the second coil and separated from each other in the second direction.

- (original) The optical disc drive according to claim 26, wherein each of the first 27. coils is divided into a plurality of subcoils, where each subcoil is separated from an adjacent subcoil in the vertical direction.
- (original) The optical disc drive according to claim 26, wherein the optical pickup 28. actuator further comprises a third coil positioned to surround the sides of the blade.

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29. (original) The optical disc drive according to claim 28, wherein the third coil is divided into a plurality of subcoils, where each subcoil is separated from an adjacent subcoil in the vertical direction.

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- (original) The optical disc drive according to claim 26, wherein the optical pickup 30. actuator further comprises a pair of unipolar magnets disposed opposite to each other with respect to the blade in the second direction and have the same polarity.
- 31. (original) The optical disc drive according to claim 26, wherein the optical pickup actuator further comprises three stoppers interposed between the blade and the base for preventing the blade from colliding with the base when excessively driven toward the base and arranged in a triangular shape centered on the objective lens.
- 32. (original) An optical pickup actuator for use with an objective lens on a base, comprising:

a blade holding the objective lens;

a plurality of suspension wires supporting the blade on the base so that the blade is elastically movable; and

three stoppers interposed between the blade and the base for preventing the blade from colliding with the base when excessively driven toward the base and arranged in a triangular shape centered on the objective lens.

- 33. (original) The optical pickup actuator according to claim 32, wherein the stoppers are positioned on the blade.
- 34. (original) The optical pickup actuator according to claim 32, wherein the stoppers are positioned on the base.
 - 35. (original) An optical disc drive for a disc that is a recording medium, comprising: a spindle motor for rotating the disc;

an optical pickup for recording and/or reproducing information by emitting light focused onto the disc through an objective lens; and

an optical pickup actuator for controlling a position of the objective lens so that the emitted light is focused on a desired position of the disc, the optical pickup actuator comprising:

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a blade holding the objective lens;

a plurality of suspension wires supporting the blade on the base so that the blade is elastically movable; and

three stoppers interposed between the blade and the base for preventing the blade from colliding with the base when excessively driven toward the base and arranged in a triangular shape centered on the objective lens.

- 36. (original) The optical disc drive according to claim 35, wherein the stoppers are positioned on the blade.
- 37. (original) The optical disc drive according to claim 35, wherein the stoppers are positioned on the base.
- 38. (original) An optical pickup actuator for use with an objective lens on a base, comprising:
 - a blade holding the objective lens;
 - a plurality of suspension wires movingly supporting the blade on the base;
 - a pair of unipolar magnets positioned on the base; and
- a plurality of coils positioned on the blade and interacting with the unipolar magnets to create an electromagnet force to move the blade; and

an inner yoke positioned inside a cavity defined by the walls of a coil, wherein the yoke comprises three sections with each of the three sections of the yoke being parallel to a different wall of the cavity to increase an effective area facing the magnets.

- 39. (original) The optical pickup actuator according to claim 38, wherein one of the coils is divided into a plurality of subcoils that are separated from one another.
- 40. (original) The optical pickup actuator according to claim 38, wherein one of the coils is positioned to surround the sides of the blade.
- 41. (original) The optical pickup actuator according to claim 38, wherein the base has only a single pair of unipolar magnets
- 42. (original) An optical pickup actuator for use with an objective lens on a base, comprising:

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- a blade holding the objective lens;
- a plurality of suspension wires movingly supporting the blade on the base;
- a plurality of hinges each of coupled to an end of a suspension wire;
- a pair of unipolar magnets positioned on the base; and
- a plurality of coils connected to an electric circuit and interacting with the unipolar magnets to create an electromagnet force to move the blade; and

wherein at least one of the plurality of coils is divided into subcoils and a hinge coupled to each of the plurality of suspension wires is between an adjacent pair of subcoils.

- 43. (original) The optical pickup actuator according to claim 42, wherein the plurality of suspension wires are at least six suspension wires and the coil is divided into three or more subcoils.
- 44. (original) The optical pickup actuator according to claim 42, wherein a first hinge and a second hinge are positioned on each of a top and a bottom of one of the coils, respectively, and a third hinge is positioned between two of the subcoils.
- 45. (original) The optical pickup actuator according to claim 42, wherein the coils are focus and tracking coils and the electric circuit supplies current to the coils in the same direction.
- 46. (original) The optical pickup actuator according to claim 42, wherein the coils are focus and tracking coils, of which the focus coil also serves as a tilt coil and the electric circuit supplies current separately to each of the coils.
- 47. (original) The optical pickup actuator according to claim 42, wherein the coils are focus, tracking, and tilt coils and the circuit supplies current to the coils in opposite directions.

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REMARKS

INTRODUCTION:

In accordance with the foregoing, claims 2 and 12 have been cancelled without prejudice or disclaimer, and claims 1, 4, 11, 14 and 26 have been amended. No new matter is being presented, and approval and entry are respectfully requested.

Claims 1, 3-11, and 13-47 are pending and under consideration.

REJECTION UNDER 35 U.S.C. §102:

In the Office Action, at page 2, claims 1-7, 11-16, 19, 20, and 25-27 were rejected under 35 U.S.C. §102(b) as being anticipated by Korean Patent 2002-140828 (This is believed to be a typographical error - it should read Japanese Patent 2002-140828 in accordance with Form 1449 and FIG. 21 of same. Hence, the response is directed to rejection of claims 1-7,11-16, 19, 20, and 25-27 under 35 U.S.C. §102(b) as being anticipated by Japanese Patent 2002-140828.) This rejection is traversed and reconsideration is requested.

Claim 1 has been amended to include the features of claim 2. Claim 2 has been canceled without prejudice or disclaimer. Claim 4 has been amended to update antecedent basis.

Claim 11 has been amended to include the features of claim 12. Claim 12 has been canceled without prejudice or disclaimer. Claim 14 has been amended to update antecedent basis.

Claim 26 has been corrected to remove spaces from immediately before two semicolons.

It is respectfully submitted that Japanese Patent 2002-140828 teaches that coils 30f are separated from each other in a vertical direction (see FIG. 21). However, coils 30f are not facing each other with respect to the objective lens 2. In contrast, amended independent claim 1 of the present invention recites that the coil comprises a pair of first coils positioned on the blade in a first direction and facing each other with respect to the objective lens (see FIGs. 4 and 8), which is not taught or suggested by Japanese Patent 2002-140828. Amended independent claim 11, and independent claims 19 and 26 of the present invention, recite the positioning of the pair of first coils in similar fashion.

In order for a reference to anticipate a claim, the reference must teach each and every element of the claim (MPEP 2131). It is respectfully submitted that the court has held that an

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anticipating reference "must disclose every element of the challenged claim and enable one skilled in the art to make the anticipating subject matter." PPG Industries, Inc. v. Guardian Industries Corp., 75 F.3d 1558, 1566, 37 USPQ2d 1618, 1624 (Fed. Cir. 1996).

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Anticipation requires a lack of novelty of the invention as claimed. The invention must have been known to the art in the detail of the claim; that is, all of the elements and limitations of the claim must be shown in a single prior reference, arranged as in the claim. See C.R. Bard, Inc. v. M3 Systems, Inc., 157 F3d 1340, 1349, 48 USPQ2d 1225, 1229-30 (Fed. Cir. 1998); Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Hence, it is respectfully submitted that independent claims 1, 11, 19 and 26 are not anticipated under 35 U.S.C. §102(b) as being anticipated by Japanese Patent 2002-140828. Since claims 2-7, 12-16, 20, 25, and 27 depend from independent claims 1,11, 19 and 26, respectively, claims 2-7, 12-16, 20, 25, and 27 are not anticipated by Japanese Patent 2002-140828 for at least the reasons independent claims 1, 11, 19, and 26 are not anticipated by Japanese Patent 2002-140828.

ALLOWABLE SUBJECT MATTER:

A. In the Office Action, at page 3, claims 8-10 17, 18, 21-24, and 28-31 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants thank the Examiner for his careful review of the claims. However, in view of the above amendments and arguments, claims 8-10 17, 18, 21-24, and 28-31, which depend from independent claims 1, 11, 19 and 26, respectfully, are submitted to be allowable for at least the reasons independent claims 1, 11, 19 and 26 are allowable.

B. In the Office Action, at page 3, claims 32-47 were allowed.

Applicants thank the Examiner for his careful review and acknowledgement that claims 32-47 are allowed.

CONCLUSIONS:

In accordance with the foregoing, Applicants respectfully submit that all outstanding objections and rejections have been overcome and/or rendered moot, and further, that all pending claims patentably distinguish over the cited art. Thus, there being no further outstanding objections or rejections, the application is submitted as being in condition for allowance which action is earnestly solicited.

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If the Examiner has any remaining issues to be addressed, it is believed that prosecution can be expedited by the Examiner contacting the undersigned attorney for a telephone interview to discuss resolution of such issues.

If there are any underpayments or overpayments of fees associated with the filing of this Amendment, please charge and/or credit the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: April 5,200

y: Lill

Registration No. 34,257

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	ument 56-7 Filed 09/04/25 Page 14 of 16 Page cknowledgement Receipt				
EFS ID:	1656116				
Application Number:	10849190				
International Application Number:					
Confirmation Number:	7296				
Title of Invention:	Optical pickup actuator and optical disk drive using the same and method				
First Named Inventor/Applicant Name:	Won-ik Cho				
Customer Number:	21171				
Filer:	Darleen J. Stockley/Brian Formagus				
Filer Authorized By:	Darleen J. Stockley				
Attorney Docket Number:	1793.1290				
Receipt Date:	05-APR-2007				
Filing Date:	20-MAY-2004				
Time Stamp:	10:56:09				
Application Type:	Utility				

Payment information:

Submitted with Payment	no	
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)	Multi Part /.zip	Pages (if appl.)	
1		040507Amendment.pdf	487073	yes	13	

Case 8:24	8:24-cv-01974-DOC-DFM Document 56-7 Filed 09/04/25 Page 15 of 16 Page Multipart Description/PDF files in .zip description						
	Document Description	Start	End				
	Fee Worksheet (PTO-06)	1	1				
	Amendment - After Non-Final Rejection	2	2				
	Claims	3	10				
	Applicant Arguments/Remarks Made in an Amendment	11	13				
Warnings:							
Information:							
	Total Files Size (in bytes):	48	37073				

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Document 56-7 ID #:1629

S&H Form: (02/05)

REPLY/AMENDMENT FEE TRANSMITTAL		Attorney Docket No.		1793.1290							
		Application Number		10/849,190							
				May 20, 2004							
		First Na	med	Won-ik Ch	Won-ik CHO, et al.						
			Inventor								
			Group Art Unit		2655						
AMOUNT ENCLOSED 0.00			Examin	er Name	HINDI, Nabil Z.						
FEE CALCULATION (fees effective 12/08/04)											
CLAIMS AS AMENDED	Claims R		Highest I Previously		Number Extra		Rate	Cal	lculations		
TOTAL CLAIMS	4.2	45	_	47 =	0	X \$ 50	.00 =	\$ 0.00			
INDEPENDENT CLAIMS		8	-	8 =	0	X \$ 20	0.00 =	0.00		0.00	
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(\$1,590)); (5 m If Notice of App			(\$500 00)								
If Statutory Disc	claimer u	nder Rule 20	(4000.00) (d) is enc	losed ad	ld fee (\$130.0	0)					
Information Disclosure Statement (Rule 1.17(p)) (\$180.00) Total of above Calculations =						\$	0.00				
Reduction by 5	0% for fi	ling by small	entity (37	CFR 1.9	1.27 & 1.28)						
Reduction by 50% for filing by small entity (37 CFR 1.9, 1.27 & 1.28) TOTAL FEES DUE =						\$	0.00				
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(4) If entry (4) is less that (5) If entry (5) is less that											
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37 CFR 1.16 (filing fees) or 37 CFR 1.17 (processing fees) during the prosecution of this application, including											
any related application(s) claiming benefit hereof pursuant to 35 USC § 120 (e.g.,											
continuations/divisionals/CIPs under 37 CFR 1.53(b) and/or continuations/divisionals/CPAs under 37 CFR 1.53(d)) to maintain pendency hereof or of any such related application.											
SUBMITTED BY: STAAS & HALSEY LLP											
Typed Name		J. Stockley				Reg. No	. 34,2	257			
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